

Work Order ID 129197

Friday, January 30, 2015 11:02:53 AM

129197

Page 1

Item ID: D4634-045 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Aft, Center Ceiling Panel Assembly
Start Date: 1/30/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 1/30/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: MLJ Date: 15-01-30 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4634	<u>1E</u>

100

0.00

100

Hand Thermo

Memo

0.00

Hand Finishing Thermoforming

Pick Kit

X1 WLC
15/03/15

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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110

110

Small Fab

Small Fab

Memo

***BEFORE INTALLING D4728-055, APPLY A 3/16" SEEM OF PLASTIC-
WELD 2 ON TOTAL LENGHT OF PART ON EANCH SIDE OF LIGHT, LET
DRY FOR ONE HOUR***
PLASTIC-WELD 2 BATCH : 130570

1- Assemble as per Dwg D4634-045

2- install No Smoking & seat belt symbols

3- Install led lights

4- Install Air valves

5-Install Wiring Harness

5-Install wiring harness

120

120

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

Handwritten: 15/02/10

Handwritten: 1
27
9-89
AUG 18 2015

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

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FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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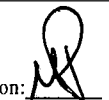
Work Order ID 129197***129197***

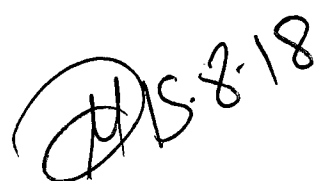
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: 	0.00							
130									
Packaging	Memo	0.00				1		15-8-18	
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

 15-8-18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Doc/Data									
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Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

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Page 1

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Work Order ID: 129197

129197

Parent Item: D4634-045

D4634-045

Parent Item Name: Aft, Center Ceiling Panel Assembly

Start Date: 1/30/2015

Required Date: 1/30/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev. A 12/08/09 New Issue DL
12/11/08 Doc release DL VERIFIED BY:JLM
Update 13/07/09 DL verf: DD
13/12/23 DL
IPP Rev B
IPP Rev C Dwg
IPP Rev D Dwg Update
IPP REV E Dwg Update 14/01/20 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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2351-20-27-C3C	2351-20-27-Z3CT	Purchased	No			100	Each	125.0000	1	1			
									**	(1)		15/04/28	

2351-20-27-C3C
STUD

Location	Loc Qty	Loc Code
MF5	98	
m130318	98	
ST569	27	
m128068	27	

50-009-2		Purchased	No			100	Each	81.0000	1	1			
									**	(1)		15/04/28	

50-009-2
Grommet

Location	Loc Qty	Loc Code
MF4	77	
m128047	77	
ST562	4	
m128047	4	

D4634-145		Manufactured	No			100	Each	0.0000	1	1			
									**	(1)		15/08/18	

D4634-145
Aft, Center Ceiling Replacement Panel Assembly

129213

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID: 129197

129197

Parent Item: D4634-045

D4634-045

Parent Item Name: Aft, Center Ceiling Panel Assembly

Start Date: 1/30/2015

Required Date: 1/30/2015

Start Qty: 1.00

Required Qty: 1.00

D4646-1 Manufactured No

100 Each 164.0000 2

D4646-1

Plenum Cap Assembly

**

2 15/04/28

Location

Loc Qty

Loc Code

MF3

164

124234

107

125003

57

D4652-1 Manufactured No

100 Each 163.0000 2

D4652-1

Air Valve, 1.16 Id Disk Type

**

2 15/04/28

Location

Loc Qty

Loc Code

MF

163

112003

19

122691

144

D4728-049 Manufactured No

100 Each 28.0000 1

D4728-049

Advisory Light, Aft

**

1 15/04/28

Location

Loc Qty

Loc Code

MF

10

117931

10

MF5

18

124736

18

D4728-055 Manufactured No

100 Each 21.0000 1

D4728-055

Cabin Lights #3

**

1 15/04/28

Location

Loc Qty

Loc Code

MF

18

122599

18

MF5

3

117934

3

DQA: _____ Date: _____



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D4634-045

Parent Item Name: Aft, Center Ceiling Panel Assembly

Start Date: 1/30/2015

Required Date: 1/30/2015

Start Qty: 1.00

Required Qty: 1.00

PLT1.5M-M

Purchased

No

100

Each

2,950.000

10

10

PI T1 5M-M

Tie Wrap

10

~~15~~ 15/04/28

Location

Loc Qty

Loc Code

MF

m129712

2950

2950

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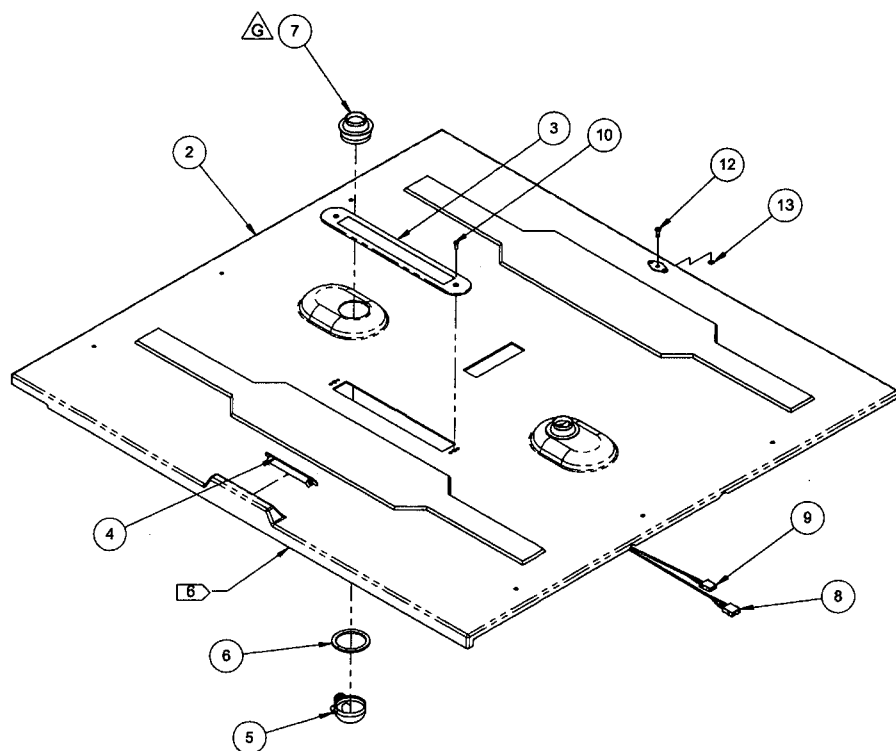
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Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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8 7 6 5 4 3 2 1

ITEM NO.	QTY. -045	P/N	DESCRIPTION
1	X	D4634-045	AFT, CENTER CEILING PANEL ASSY
2	1	D4634-145	AFT, CENTER CEILING REPLACEMENT PANEL ASSY
3	1	D4638-1 (REF)	LED LIGHT (REF PART OF D4728-055)
4	1	D4645-1 (REF)	NO SMOKING & FASTEN BELT LIGHT (PART OF D4728-049)
5	2	D4646-1	PLENUM CAP ASSEMBLY
6	2	D4652-3 (REF)	MOUNTING NUT (PART OF D4652-5)
7	2	D4652-5	AIR VALVE, 1.16 ID DISK TYPE
8	1	D4728-049	ADVISORY LIGHT (AFT) HARNESS ASSEMBLY
9	1	D4728-055	CABIN LIGHT #3 ASSEMBLY
10	2	N/A (REF)	SCREW (PART OF D4638-1)
11	10	PLT1.5M-M	TIE-WRAP (OR PLT1.5M-C)
12	1	2351-20-27-C3C	DZUS STUD, OVAL HEAD
13	1	50-009-2	GROMMET



129197 ML5
1501-30

D4634-045 AFT, CENTER CEILING PANEL ASSY

RELEASED

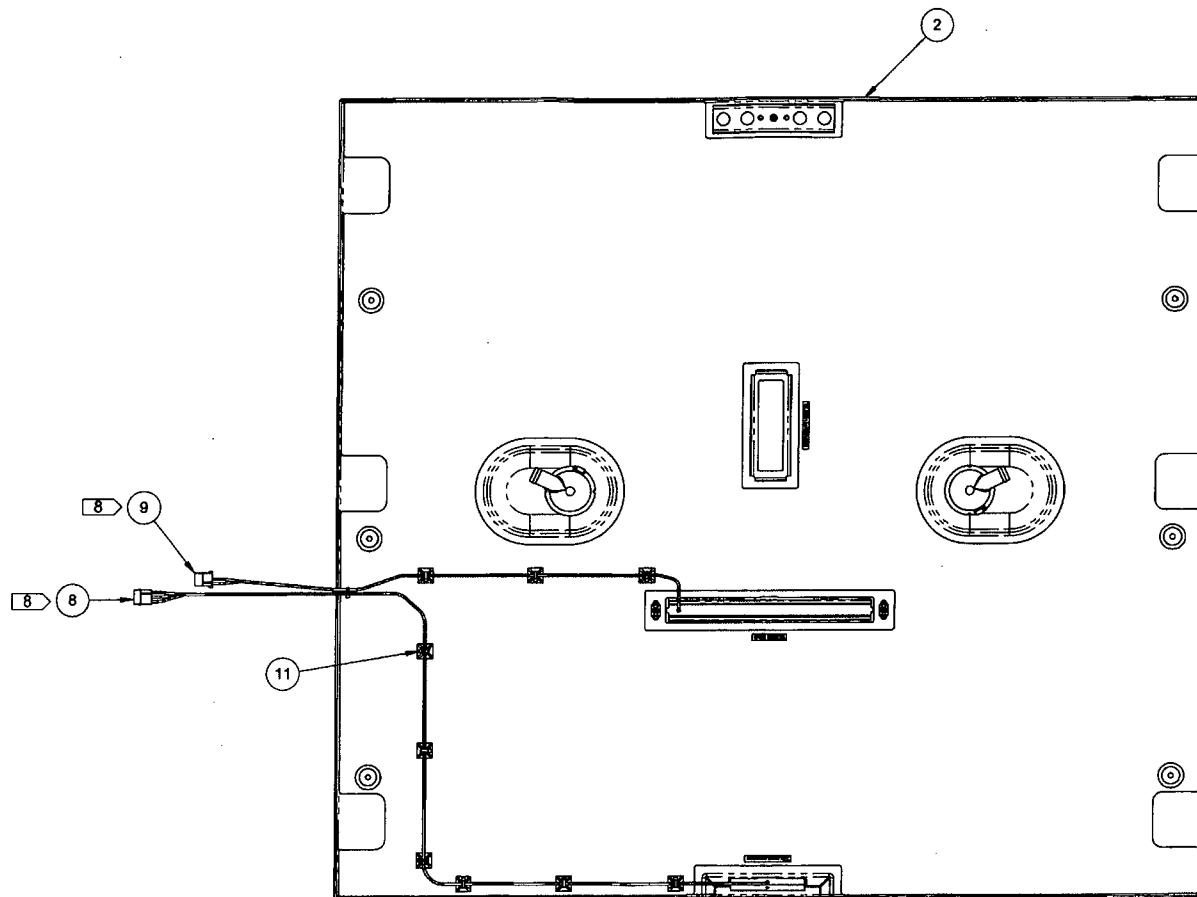
2015 JAN 26 *qp*

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.4, ON SMOOTH SIDE
- 7) WEIGHT: 10.5 lbs
- 8) INSTALL D4728-049/-055 WIRE HARNESS PER QSI 048

APPROVED

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	AK	DRAWING NO. D4634	REV. G
MFG. APPR.	DL	SHEET 5 OF 17	
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	CENTER CEILING PANELS	NTS
DATE	14.11.28	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D4634-045 AFT. CENTER CEILING PANEL ASSY
AUXILIARY VIEW

RELEASED

2015 JAN 26 *q*

APPROVED

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AK	DRAWING NO.	REV. G
MFG. APPR.	DL	D4634	SHEET 6 OF 17
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	CENTER CEILING PANELS	NTS
DATE	14.11.28	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR DISSEMINATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

Daryl Leger

From: David Shepherd
Sent: Thursday, May 14, 2015 12:35 PM
To: Nigel Forbes; Bill Beckett
Cc: Roberto Fuentes; Linda Lacelle; Mario Poulin; Daryl Leger; Harvey Siemens
Subject: RE: 139 Ceilings Deviation

Nigel,

Thanks for the clarification. I have a much better understanding of what happened here. My assumption had been that we were holding off ordering parts until the newer, cheaper parts were approved so that we could reduce our costs. There is certainly no Engineering objection to using the existing stock.

On the lights, the part number did not change (still D4638-1) even though the supplier did, so this is not a deviation. Both the Bruce p/n and Emteq p/n are acceptable.

On the vents, the part number changed from D4652-1 to D4652-5 because the appearance of the part was quite different, so all drawings now call up D4652-5. Suggest we get Roberto to issue a DEO that allows the D4652-1 to be used in place of D4652-5 until stock is depleted.

In both cases, we should set aside a portion of the old stock to support customers who already have the kits. Maybe 10 of the lights and 30 of the vents, or something like that.

Regards,
David

From: Nigel Forbes
Sent: May-14-15 8:31 AM
To: David Shepherd; Bill Beckett
Cc: Roberto Fuentes; Linda Lacelle; Mario Poulin; Daryl Leger; Harvey Siemens
Subject: RE: 139 Ceilings Deviation

David,

Apologies for the delay in replying. After reviewing the history on these items, here's the background:

- The lights, long lead time (90+ days) and minimum quantities to get them at \$765 a piece. Plus, these had to be shipped to Mr. Rowe to incorporate in the harnesses and that added to the lead time. So again, we placed blanket P.O based on forecast and we ended up with the these quantities and we can't return them. See below.

From: Shonda Wallace/ATL/Satair <sow@satair.com>
Date: May 14, 2015 at 10:09:59 AM EDT
To: Linda Lacelle <llacelle@dartaero.com>
Subject: RE: BR9741-401-001

Linda,

Unfortunately we do not buy parts back.

Best regards,

Shonda Wallace
Customer Order Specialist

Tel: +1 404 675 6328

Fax: +1 404 675 6311
Mail to: sow@satair.com

Satair USA Inc
3993 Tradeport Boulevard · Atlanta, GA 30354
USA
Tel: +1 404 675 6333 · Fax: +1 404 675 6311
AOG (Outside business hours): +1 404 310 1966

- The plated gaspers/air vents were problematic and the lead time was long and unpredictable due to the plating rejections. So we mitigated the risk of delivery delays to our key customers by ordering them on a blanket P.O with staggered deliveries. In doing so, based on forecasted sales and the pending approval to switch to the new air vents, we ordered extra quantities to avoid shortages. These were and are customized items due to the plating selection and are non-returnable or exchangeable. In the timing of it all with the engineering change to the new vents and the low sales on the ceiling kits, we ended up with this stock. See below:

From: <cbirk@birkaero.net>
Date: May 11, 2015 at 10:30:06 PM GMT-4
To: 'Linda Lacelle' <llacelle@dartaero.com>
Subject: RE: D4652-1 air valves

Dear Linda,

We cannot accept the plating back as they are customer specific and there is no one else that is utilizing this part in plating. We understand that there were some lateness to parts but that was due to plating reworks which are out of our control. Please let us know if you have any other questions or concerns.

Best Regards,
Connie Birk
Birk Aerosystems Corporation
Phone: 714-554-9782
Fax: 714-554-3659
Email: cbirk@birkaero.net

From: Linda Lacelle [<mailto:llacelle@dartaero.com>]
Sent: Monday, May 11, 2015 11:35 AM
To: cbirk@birkaero.net
Subject: D4652-1 air valves

Good Afternoon Connie,
We are ready to proceed with the new air valves, D4652-5, however, we still have a lot of stock of the D4652-1's, due to the lateness of all the orders last year. Is there anything you can do to issue us an RMA for the current stock of the D4652-1's?
Please get back to me at your earliest convenience.

Thank You,

Linda Lacelle
Manager Purchasing and ERP

From: David Shepherd
Sent: May-11-15 12:58 PM
To: Nigel Forbes; Bill Beckett
Cc: Roberto Fuentes; Linda Lacelle; Mario Poulin; Daryl Leger; Harvey Siemens
Subject: RE: 139 Ceilings Deviation

Nigel/Bill,

Can you clarify what is going on here. About 6 months ago, Operations pushed Engineering to change the lights and air vents for the AW139 ceilings because the previous lights and air vents were waaaaaaay too expensive. Now we have 3 years supply of the old expensive parts. I'm confused.

Regards,
David

From: Mario Poulin
Sent: May-11-15 10:53 AM
To: Daryl Leger; Harvey Siemens
Cc: Roberto Fuentes; David Shepherd; Linda Lacelle
Subject: RE: 139 Ceilings Deviation

No orders pending,

From: Daryl Leger
Sent: Monday, May 11, 2015 12:49 PM
To: Mario Poulin; Harvey Siemens
Cc: Roberto Fuentes; David Shepherd; Linda Lacelle
Subject: RE: 139 Ceilings Deviation

Harvey

Re: 139 Ceilings

We have	old stock quantities of	D4652-1 air Valve	QTY 163. (enough old stock for 13 sets)	New Stock Qty. 0
	Old stock quantity of	D4638-1 light	QTY 73. (enough old stock for 24 sets)	New Stock
	Qty. 0			

We do not have any orders on hand for ceilings and I have no idea if there are any pending orders.
Please advise

Daryl

From: Mario Poulin
Sent: Monday, May 11, 2015 10:45 AM
To: Harvey Siemens; Daryl Leger
Cc: Roberto Fuentes; David Shepherd; Linda Lacelle
Subject: RE: 139 Ceilings Deviation

Harvey,

We have stock for about 3 years, Ok to keep some old ones in case, but we should be reducing inventory first.

Mario,

From: Harvey Siemens
Sent: Monday, May 11, 2015 10:18 AM
To: Daryl Leger
Cc: Roberto Fuentes; Mario Poulin; David Shepherd
Subject: RE: 139 Ceilings Deviation

Daryl,

I thought we were going to move to the new parts and not use up all the old stock in case somebody wanted/needed replacement parts.

Just a little curious, why we are going backwards??

HS

From: Daryl Leger
Sent: May-11-15 5:56 AM
To: Harvey Siemens
Cc: Roberto Fuentes; Mario Poulin
Subject: 139 Ceilings Deviation

Harvey

Can you please provide a standard email that we can use to make D4634-xxx panels at Rev. F until old stock parts are used up.

We will also need same type document to produce D4635-xxx panels as per Rev. E until old stock parts are used up.

We will not use unmatched parts (old/new on same set panel) as old stock diminishes.

Daryl

DRAWING NO. D4652	TITLE AIR VALVE	REV. D	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D4652-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN RF	CHECKED 	MFG. APPR. TBD	APPROVED 		DE APPR.		
DATE 15.06.03	DATE 15.06.03	DATE 15.06.XX	DATE 15.06.03		DATE		

PURPOSE:

THIS DEO ALLOWS THE D4652-1 AIR VALVE TO BE USED IN PLACE OF D4652-5 UNTIL STOCK DEPLETED.

NOTE: A COMPLETE D139-816-11 KIT SHOULD HAVE SAME P/N AIR VALVE.